



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*In re* Application of:

Rothermel and Williams

Serial No.: 09/782,953

Filed: February 13, 2001

For: METHODS AND COMPOSITIONS  
RELATING TO MUSCLE SELECTIVE  
CALCINEURIN INTERACTING  
PROTEIN (MCIP)

Group Art Unit: 1653

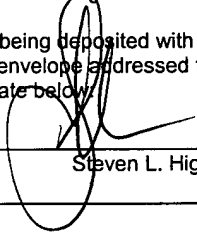
Examiner Samuel W. Liu

Atty. Dkt. No.: MYOG:036US/SLH

CERTIFICATE OF MAILING  
37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date below.

July 20, 2005  
Date

  
Steven L. Highlander

**DECLARATION OF BEVERLY ROTHERMEL AND R. SANDERS WILLIAMS**

**UNDER 37 C.F.R. § 1.131**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-01450

Dear Sir:


I, Beverly Williams and R. Sanders Williams, do declare the following:

1. We are citizens of the United States. Beverly Rothermel at 1409 Schumac Lane, Bedford, TX 76022 and R. Sanders Williams resides at 2 Piling Place, Durham, NC 27707.

2. R. Sanders Williams currently holds the position of Dean of the Medical School at Duke University. Beverly Rothermel currently holds the position of Assistant Professor at the University of Texas Southwestern Medical Center at Dallas.
3. R. Sanders Williams is the first inventor listed as an inventor in the above-captioned application and Beverly Rothermel is the second inventor listed as an inventor for the same.
4. The subject matter of the rejected claims was conceived prior to the earliest effective date of the cited reference, U.S. Patent 6,673,604. As support of this statement, we have attached hereto a notebook page showing purchase of primers for the amplification of MCIP (then known as DSCR-1), which page is dated prior to July 23, 1999. This page, coupled with the invention disclosure submitted with the Declaration previously on record, demonstrates our conception of the invention prior to the earliest effective date of the '604 patent. Further, there was continuous work on the project from before July 23, 1999 to the time of filing of the instant application, namely February 13, 2001.
5. We hereby declare that all statements made of our own knowledge are true and all statements made on information are believed to be true and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

7/18/05  
Date

\_\_\_\_\_  
Date

  
Beverly Rothermel

\_\_\_\_\_  
R. Sanders Williams

primers for PCR of HA tagged DSCR1

Run date: 1.   
 Customer: Bev Rothermel 2.   
 Run ID: 5' DSCR1   
 Instrument:   
 Sequence name: WILLIAMS   
 Sequence: 5' CCA CTG TGA AAC AGA ATG GTC   
 Length 21 7 A 6 G 4 C 4 T   
 Comments: Deliver NB11.208. For PCR off human cDNA   
 Tm: 52.3 °C 47.6 % G+C   
 Cycle: 48NM   
 End procedure: STANDARD   
 ☐ DMT On ☒ DMT Off

Run date: 1.   
 Customer: Bev Rothermel 2.   
 Run ID: 5' DSCR1   
 Instrument:   
 Sequence name: WILLIAMS   
 Sequence: 5' CAG TTC AGC TGA GTC GGA TC   
 Length 28 4 A 7 G 4 C 5 T   
 Comments: deliver NB11.208. for PCR off of human cDNA   
 Tm: 53.7 °C 55.8 % G+C   
 Cycle: 48nm   
 End procedure: STANDARD   
 ☐ DMT On ☒ DMT Off

Tm = 54

Run date: 1.   
 Customer: 2.   
 Run ID: 3' HA-DSCR1   
 Instrument:   
 Sequence name:   
 Sequence: 5' TAG AGC GGA GTC TGG GAC GTC GTA TGG GTA GCT GAG GTC   
 Length 47 8 A 21 G 7 C 11 T   
 Comments: Deliver NB11.208. For PCR of human DSCR1, adds HA tag (N-term)   
 Tm: 75.8 °C 59.6 % G+C   
 Cycle: 48NM   
 End procedure: STANDARD   
 ☐ DMT On ☒ DMT Off

how about three more sets of primers?

(12 bp homologous)  
Tm = 54  
this should be plenty

Kozak  
GCC<sup>A</sup><sub>6</sub>CC AUGG

origo 101	102	103
571 1859-088	571 1859-087	571 1871-011
GENOSYS	GENOSYS	GENOSYS
5'DSCR1	5'DSCR1	5'DSCR1-HA
5'-CCACCTGTGAAGAGAAATGTTG	5'-CAGTTTACCTGAGGTGATC	5'-TAGACGCTAGTCTGGGAGTGTGCTATGGGTACTGAGCTGGATGGGCG
11,800 367.0bp 56.8nmol	11,800 357.5bp 52.7nmol	10,800 328.4bp 68.3nmol
Tm=81.0°C MW=8456	Tm=82.5°C MW=8456	Tm=88.7°C MW=14881

95 - 5 min  
95 - 30 sec  
95 - 5 sec  
65 - ramp 10.00°/deg 15 sec hold  
55 - ramp 40.00°/deg 15 sec hold

4

PCR product should be: ~ 560 bp in length (for HA version)  
will clone into TA vector

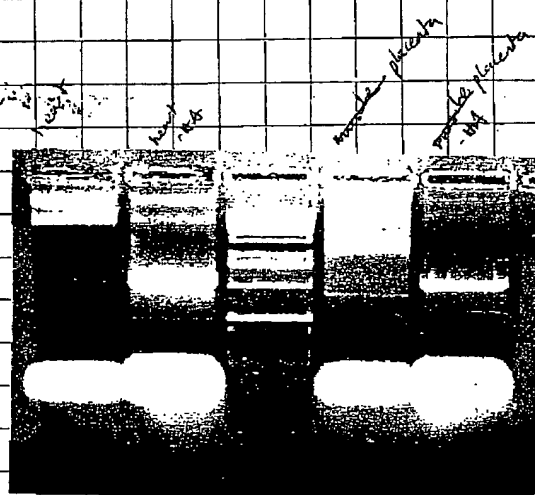
what about primers for ZAKI-4 and REX1?

ZAKI-4

5' CCA GCC CTT AGC ATG GAC TG  
M D

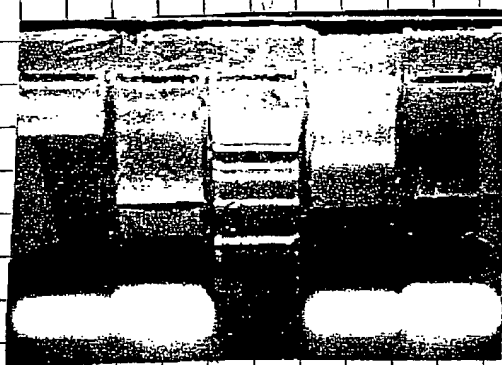
3' AGC TCA GTT GGA CAC GGA GGG TG

stop  
AGC GTA GTC GGG GAC GTC GTA GGG GGA 3' HA tag



in the HA lanes I'm getting a major band, but, it's far too big, what are all the <sup>very</sup> large products I'm getting too?

I'll cut out the ones from the HA lanes and set up a ligation with them, as for the others, I'm not sure what to do with them.



pool 1-3 (- HA version)

pool 4-6 (+ HA version)

set-up pool using  
and original DNA

HA primer  
5' primer  
4-5 as template

#4

new program:

95 - 5 min

94 - 30 sec

30X } 75 - 5 sec

62 - 10 sec ramp - 15 sec

72 - 30 sec